

DRAFT

AIR EMISSION PERMIT NO. 05300251-006

(AQD NO. 1176-99-I/O-1)

FOR

**CONSTRUCTION AND OPERATION OF A
SOIL VAPOR EXTRACTION VENT SYSTEM AND
AIR POLLUTION CONTROL EQUIPMENT**

According to Minnesota Statutes Chapter 115 and 116, Minnesota Rules Chapters 7001 and 7007, and 40 CFR part 52, subp. Y:

INTERPLASTIC CORPORATION

1225 Wolters Boulevard
St. Paul, Minnesota 55110-5145

(hereinafter Permittee) is issued an Air Emission Permit by the Minnesota Pollution Control Agency (hereinafter MPCA). The permit authorizes the Permittee to modify the stationary source at 2015 Northeast Broadway, Minneapolis, Hennepin County, Minnesota. The permit authorizes construction and operation of a soil vapor extraction system and the operation of a thermal oxidizer under the conditions set forth herein. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be made in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules, unless the term is explicitly defined in the permit.

Permit Type: Major Amendment; Synthetic Minor under 40 CFR pt. 52.21

Issue Date:

Expiration: Upon issuance of a Total Facility Permit

Rodney E. Massey
District Manager
South District

For Karen A. Studders
Commissioner
Minnesota Pollution Control Agency

DS:lk

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NOTICE TO THE PERMITTEE

Your stationary source may be subject to the requirements of the Minnesota Pollution Control Agency's (MPCA) solid waste, hazardous waste, and water quality programs. If you wish to obtain information on these programs, including information on obtaining any required permits, please contact the MPCA general information number at:

Metro Area (651) 296-6300

Outside Metro Area 1-800-657-3864

TTY (651) 282-5332

The rules governing these programs are contained in Minnesota Rules (Minn. R.) chapters (chs.) 7000-7105. Written questions may be sent to: Minnesota Pollution Control Agency, 520 Lafayette Road North, Saint Paul, Minnesota 55155-4194.

Questions about this air emission permit or about air quality requirements can also be directed to the telephone numbers and address listed above.

PERMIT SHIELD

Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provisions of the applicable requirements identified in the permit as the basis of each condition. Any requirements which have been determined not to apply are listed in Table A of this permit.

The permit shield, however does not apply to:

1. Any national ambient air quality standards adopted under section 109 of the Clean Air Act or increment or visibility under part C of title I of the Clean Air Act;
2. Any state ambient air quality standard under Minn. R. ch. 7009; and
3. The state noise pollution control rules, Minn. R. ch. 7030.

FACILITY DESCRIPTION

The Permittee owns and operates a plastic resin manufacturing plant at 2015 Northeast Broadway, Minneapolis, Hennepin County, Minnesota. The stationary source consists of reactors, thin tanks, mixing and blending tanks, numerous storage tanks, a pilot plant, two steam boilers and a hot oil boiler.

This permit authorizes the construction and operation of a soil vapor extraction (SVE) system as required by the Permittee's May 1994 Remedial Action Plan approved by the MPCA in August 1994. The SVE system is being installed to enhance the removal of volatile organic compounds (VOC) from the soil. VOC emissions from the SVE system will be vented to a new thermal oxidizer.

The modification authorized by this permit requires a major permit amendment as specified in Minn. R. 7007.1450. The following is a summary of the changes in hourly emission rates (lb/hr) at maximum source capacity calculated as specified in Minn. R. 7007.1200 for the stationary source described in this permit:

Criteria Pollutants

PM and PM ₁₀	0.0651
SO ₂	0.00514
NO _x	1.377

Criteria Pollutants

CO	0.7199
VOCs	3.933
Lead	neg.

Hazardous Air Pollutants

Total (HAPs)	3.89
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Following is a summary of the net increase in emissions in tons per year (TPY) calculated as specified in federal regulation 40 CFR § 52.21 (b)(3) for the stationary source as described in this permit:

Criteria Pollutants

PM and PM ₁₀	0.285312
SO ₂	0.022525
NO _x	6.0339

Criteria Pollutants

CO	3.1534
VOCs	17.226
Lead	neg.

Hazardous Air Pollutants

Total (HAPs)	17.02
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Where,

PM = Particulate Matter

SO₂ = Sulfur Dioxide

VOCs = Volatile Organic Compounds

HAPs = Hazardous Air Pollutants.

PM₁₀ = PM smaller than 10 microns

NO_x = Nitrogen Oxides

CO = Carbon Monoxide

TABLE A: LIMITS AND OTHER REQUIREMENTS

Table A contains limits and other requirements with which your facility must comply. The limits are located in the first column of the Table (What to do). The limits can be emission limits or operational limits. This column also contains the actions that you must take and the records you must keep to show that you are complying with the limits. The second column of Table A (Why to do it) lists the regulatory basis for these limits.

Subject Item:	EU 029	Soil Vapor Extraction Vent No. 1
	EU 030	Soil Vapor Extraction Vent No. 2
	EU 031	Soil Vapor Extraction Vent No. 3
	EU 032	Soil Vapor Extraction Vent No. 4
	EU 033	Soil Vapor Extraction Vent No. 5
	EU 034	Soil Vapor Extraction Vent No. 6
	EU 035	Soil Vapor Extraction Vent No. 7
Associated Items:	CE 001	Thermal Oxidizer
	CE 002	Regenerative Thermal Oxidizer with Heat Exchanger
	SV 001	
	SV 013	

What to do	Why to do it
SOIL VAPOR EXTRACTION SYSTEM CONSTRUCTION AND OPERATIONAL REQUIREMENTS	
<p>The SVE system shall be in full operation within 180 days of permit issuance.</p> <p>“Full operation” shall be defined as:</p> <ol style="list-style-type: none"> all seven extraction vents are installed, all required ductwork and piping for each extraction vent is installed, and the system blower is installed and operating at design capacity drawing from all seven vents. 	Minn. R. 7007.0800, subp. 2
Vent all emissions from the SVE system to CE 002, a thermal oxidizer, for control of VOC emissions. Emissions shall be immediately vented to CE 001 following a shutdown or breakdown of CE 002.	Minn. R. 7007.0800, subp. 2 and Minn. R. 7007.0800, subp 16(J)

SOIL VAPOR EXTRACTION SYSTEM NOTIFICATION REQUIREMENTS	
Commencement of Construction: submit written notification within 30 days of commencement of construction of the SVE system.	Minn. R. 7007.0800, subp. 2
Completion of Construction: submit written notification within 30 days of completion of construction of the SVE system.	Minn. R. 7007.0800, subp. 2
Verbal Notification: within 24 of commencing operation of the SVE system.	Minn. R. 7007.0800, subp. 2
Completion of Operation: submit written notification of SVE project completion within 60 days of SVE project termination.	Minn. R. 7007.0800, subp. 2
AIR POLLUTION CONTROL EQUIPMENT OPERATIONAL REQUIREMENTS	
CE 001 and CE 002 Destruction Efficiency for Volatile Organic Compounds: greater than or equal to 95.0 percent destruction efficiency.	Title I Condition: To avoid major modification classification under 40 CFR pt. 52.21
CE 001 and CE 002 Combustion Chamber Temperature: greater than or equal to 1400°F on a 15-minute average at all times the oxidizer is in operation. A new temperature may be set pursuant to Minn. R. 7017.2025, subp. 3, based on the average temperature recorded during the most recent performance test where compliance for VOC destruction efficiency was demonstrated.	Title I Condition: To avoid major modification classification under 40 CFR pt. 52.21

AIR POLLUTION CONTROL EQUIPMENT INSPECTION AND MAINTENANCE REQUIREMENTS	
<p>Air Pollution Control Equipment Inspection: the Permittee shall:</p> <ol style="list-style-type: none"> 1. thoroughly inspect all control equipment at least annually, or as required by the manufacturer's specifications (this often requires shutting down temporarily); 2. inspect quarterly, or as required by the manufacturer's specifications, components that are not subject to wear including structural components, housings, ducts, and hoods; 3. inspect monthly, or as required by the manufacturer's specifications, components that are subject to wear or plugging, including: bearings, belts, hoses, fans, nozzles, orifices, and ducts; 4. check daily, or as required by the manufacturer's specification, monitoring equipment, including: pressure gauges, chart recorders, temperature indicators, and recorders. 	Minn. 7011.0075, subps. 2(C), 2(D), 2(E) and 2(F)
The above monitoring system shall be equipped with an alarm which notifies staff when the temperature in the combustion chamber of CE 001 or CE 002 falls below the minimum allowable temperature.	Minn. R. 7007.0800, subp. 2
Air Pollution Control Equipment Maintenance: maintain an inventory of spare parts as required by the manufacturer's specifications	Minn. R. 7011.0075, subp. 2(A)
Air Pollution Control Equipment Maintenance: train staff on the operation, monitoring and troubleshooting, and require staff to respond to indications of malfunctioning equipment.	Minn. R. 7011.0075, subp. 2(B)
CE 001 and CE 002 Combustion Chamber Temperature Monitor Calibration: Annually calibrate combustion chamber continuous temperature monitor.	Minn. 7007.0800, subp. 4(D)

AIR POLLUTION CONTROL EQUIPMENT MONITORING AND RECORDKEEPING REQUIREMENTS	
Air Pollution Control Equipment Maintenance Recordkeeping: maintain a record of parts replaced, repaired or modified for the previous five years.	Minn. 7011.0075, subps. 2(I),
CE 001 and CE 002 Combustion Chamber Temperature Monitoring: install, operate and maintain a monitor that continuously measures and records the temperature in CE 002's combustion chamber in degrees Fahrenheit.	Minn. R. 7007.0800, subp. 4
CE 001 and CE 002 Combustion Chamber Temperature Monitor Operation: temperature monitor shall be in operation at all times CE 002 is operating.	Minn. R. 7007.0800, subp. 4
CE 001 and CE 002 Combustion Chamber Temperature Monitor Recordkeeping: records shall be maintained for a period of five years from the date of measurement.	Minn. R. 7007.0800, subp. 5
CE 001 and CE 002 Combustion Chamber Temperature Monitor Calibration Records: records shall be maintained for a period of five years from the date of calibration, including the name of the company who performed the calibration of the temperature monitor.	Minn. R. 7007.0800, subp. 5

AIR POLLUTION CONTROL EQUIPMENT NOTIFICATION REQUIREMENTS	
<p>Breakdown Notification: Notify the commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2.</p> <p>At the time of notification or as soon as possible thereafter, the Permittee shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner again when the breakdown is over.</p>	Minn. R. 7019.1000, subp. 2
<p>Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the Permittee does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances as outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3.:</p> <p>At the time of notification, the Permittee shall inform the Commissioner of the cause of the shutdown and the estimated duration. The Permittee shall notify the Commissioner when the shutdown is over.</p>	Minn. R. 7019.1000, subp. 3

AIR POLLUTION CONTROL EQUIPMENT NOTIFICATION REQUIREMENTS (continued)	
Notification of Deviations Which Endanger Human Health or the Environment: In the event of any deviation, as defined in part 7007.0100, subpart 8a, which could endanger human health or the environment, the Permittee shall notify, verbally or in writing, including via facsimile the Commissioner or the State Duty Officer as soon as possible after discovery of the deviation.	Minn. R. 7019.1000, subp. 1
Notification of Deviations Which Endanger Human Health or the Environment Report: Within two working days of the discovery, the Permittee shall submit to the Commissioner a written description of the deviation stating: 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.	Minn. R. 7019.1000, subp. 1

AIR POLLUTION CONTROL EQUIPMENT PERFORMANCE TESTING REQUIREMENTS	
<p>Initial Performance Test: due 30 days after achieving full operation of the SVE system to measure VOC destruction efficiency.</p> <p>“Full operation” shall be defined as:</p> <ol style="list-style-type: none"> 1. all seven extraction vents are installed, 2. all required ductwork and piping for each extraction vent is installed, and 3. the system blower is installed and operating at design capacity drawing from all seven vents. 	<p>Minn. R. 7017.2020, subp. 1 and Minn. R. 7007.0800, subp. 4</p>
<p>Performance Test Notification (written): due 30 days before Initial Performance Test</p>	<p>Minn. R. 7017.2030, subp. 1</p>
<p>Performance Test Plan: due 30 days before Initial Performance Test</p>	<p>Minn. R. 7017.2030, subp. 2 and 3</p>
<p>Performance Test Pre-Test Meeting: due 7 days before Initial Performance Test is required once normal operation is achieved.</p>	<p>Minn. R. 7017.2030, subp. 4</p>
<p>Performance Test Report: due 45 days after Initial Performance Test</p>	<p>Minn. R. 7017.2035, subp. 1</p>
<p>Performance Test Report - Microfiche Copy: due 105 days after Initial Performance Test</p>	<p>Minn. R. 7017.2035, subp. 2</p>
<p>Performance Test: due before end of each 60 months following Initial Performance Test to determine compliance with Title I Condition (required destruction efficiency) for CE 002</p>	<p>Minn. R. 7017.2020, subp. 1</p>
<p>Performance Test Notification (written): due 30 days before end of each 60 months following Initial Performance Test (30 days before each Performance Test)</p>	<p>Minn. R. 7017.2030, subp. 1</p>

Performance Test Plan: due 30 days before end of each 60 months following Initial Performance Test (30 days before each Performance Test)	Minn. R. 7017.2030, subp. 2 and 3
Performance Test Pre-Test Meeting: due 7 days before end of each 60 months following Initial Performance Test (7 days before each Performance Test)	Minn. R. 7017.2030, subp. 4
Performance Test Report: due 45 days after end of each 60 months following Initial Performance Test (45 days after each Performance Test)	Minn. R. 7017.2035, subp. 1
Performance Test Report - Microfiche Copy: due 105 days after end of each 60 months following Initial Performance Test (105 days after each Performance Test)	Minn. R. 7017.2035, subp. 2

GENERAL CONDITIONS	
<p>Inspection and Entry Requirements: Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow MPCA staff, or an authorized representative or agent of the MPCA, to perform the following:</p> <ol style="list-style-type: none">1. Enter upon the Permittee's premises where the stationary source is located or activity is conducted, or where records must be kept under the conditions of the permit;2. Access and copy, at reasonable times, any records that must be kept under the conditions of the permit;3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit. For purposes of this Subpart, reasonable times include any time that the stationary source is operating; and4. Sample or monitor any substances or parameters at any location: at reasonable times, for the purposes of assuring compliance with the permit or applicable requirements or as otherwise authorized by the act or state law.	Minn. Stat. § 116.091

TABLE B: SUBMITTALS

Table B lists the submittals you must send to the Commissioner. All submittal must be postmarked or received by the date specified in the table, and certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21.

Send any application for a permit or permit amendment to: Permit Technical Advisor, Permit Section, Air Quality Division, Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4194. Also send the Permit Technical Advisor, notices of accumulated insignificant activities, installation of control equipment, replacement of an emissions unit, and changes that contravene a permit term.

Send all other submittals to:

**Supervisor
Compliance Determination Unit
Air Quality Division
Minnesota Pollution Control Agency
20 Lafayette Road North
Saint Paul, Minnesota 55155-4194**

What to send	When to send	Portion of facility affected
Emission Fees	due 60 days after receipt of an MPCA bill.	Total Facility
Compliance Certification	due annually 30 days after end of each calendar year following Permit Issuance.	Total Facility
Semiannual Deviations Report	due semi-annually (i.e., July 30th and January 30th)	Total Facility
Performance Test Notification (written)	due 30 days before Initial Performance Test	CE 002
Performance Test Plan	due 30 days before Initial Performance Test	CE 002
Performance Test Report	due 45 days after Initial Performance Test	CE 002
Performance Test Report - microfiche copy	due 105 days after Initial Performance Test	CE 002
Performance Test Notification (written)	due 30 days before end of each 60 months following Initial Performance Test (30 days before each Performance Test)	CE 002